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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,006	01/21/2002	Samuel Henry Beuke	001349.0238	5494

7590 06/27/2003
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EXAMINER

SMITH, DUANE

ART UNIT	PAPER NUMBER
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1724

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DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,006

Applicant(s)

BEUKE ET AL.

Examiner

Duane S. Smith

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1724

1. The use of the trademarks UOP MEROX, MERICHEM THIOLEX/ REGEN, and MEROX on page 1; and INCONEL at page 5 has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

2. The disclosure is objected to because of the following informalities: at page 5 last line Inonel should read as -Inconel--.

Appropriate correction is required.

3. Claims 9, 10, 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 9-10 "step(b)" lacks clear antecedent basis as no step (b) is present in claim 1 upon which claims 9-10 depend.

In claim 22, the use of the trademark INCONEL is indefinite as to the exact composition of the alloy as the nature of trademarks can and does change over time.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

Art Unit: 1724

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 9-10 11-12, 13-18, 23, 24, 25 are rejected under 35

U.S.C. 102(b) as being anticipated by Seil(US Patent No. 1,7785,365)

Seil teaches a method of removing organic sulfur compounds being carbon disulfides from a gas including the steps of contacting a gas stream with a liquid hydrocarbon stream in a packed scrubber and absorbing a portion of the organic sulfur compounds from the gas stream to the liquid hydrocarbon stream. Inherently kerosene includes at least one or more liquid hydrocarbons. Inherently kerosene has a boiling point range of 150-280 °C or 302-536°F which overlaps the boiling point of 180-430°F of instant claim 4. the disulfide being separated in extractor tank(11). The gas being sent to a heater inherently as it is a fuel gas (col. 2 lines 35-45).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seil taken together with Mehra(US Patent No. 4,696,688)

Seil discloses the method essentially as claimed, supra. Seil does not disclose the hydrocarbon solvent to be a gasoline, i.e. octane, or naphtha as in instant claims 5-6. However, Mehra does disclose that naphtha, i.e. gasoline or octane solvent, is an equivalent solvent to kerosene(col. 1 lines 65-68). It would

Art Unit: 1724

have been obvious to one of ordinary skill in the art at the time of the invention to substitute naphtha for kerosene in the process of Seil in that mere substitution of one known functional equivalent solvent for another being within the scope of one of ordinary skill in the art, one of ordinary skill having the reasonable expectation of success in that known hydrocarbon oils has a great capacity to absorb similar materials in this case naphtha and naphtha, as suggested by Mehra(col. 2 lines 5-10); and there has been no showing of unexpected or unobvious results of utilizing naphtha over another known functional equivalent solvent.

8. Claims 7-8,19,21,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seil taken together with Sperr Jr.(US Patent No. 1,578,687) .

Seil discloses the method essentially as claimed, supra, except for the diameter of the packings, the diameter and material of the scrubber shell. However, Sperr Jr. makes known these dimensions and materials(col. 5 line 41, col. 4 lines 124-127). It would have been obvious to one of ordinary skill in the art that the scrubber of Seil would have the dimensions of the scrubber of Sperr Jr. as Seil utilizes the scrubber of Sperr Jr. in Seil's method(col. 1 lines 5-30). Seil does not disclose that sulfur concentrations of the exit gas stream as in instant claims 7-8. However, Sperr Jr. does disclose that naphtha is removed within the claimed range(col. 9 lines 1-15) and inherently if naphtha and disulfides are being removed in Seil within equilibrium(col. 1 lines 35-45) then the disulfide concentration should be within the claimed range.

Art Unit: 1724

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bulina et al, Bosniak et al, Hooker et al, Beavon et al, Uranek et al, Bratzier et al, Landeck et al, Burr, and Ebner et al disclose similar methods.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duane S. Smith whose telephone number is 703-308-3792. The examiner can normally be reached on 8:30-6:00 M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 703-308-1261. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Duane S. Smith
Primary Examiner
Art Unit 1724

D-11A
6-25-03

dss
June 25, 2003